Exploring Aeronautics			
2005 Mathematics			
Essential Knowledge and Skills			
Texas Mathematics			
Grade 5			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	TX	MA.5.5.A	describe the relationship between sets of data in graphic organizers such as lists, tables, charts, and diagrams; and
Fundamentals of Aeronautics (145-176)	TX	MA.5.13.A	use tables of related number pairs to make line graphs;
Fundamentals of Aeronautics (145-176)	TX	MA.5.13.C	graph a given set of data using an appropriate graphical representation such as a picture or line graph.
Wings(177-208)	TX	MA.5.10.B	connect models for perimeter, area, and volume with their respective formulas; and
Wings(177-208)	TX	MA.5.10.C	select and use appropriate units and formulas to measure length, perimeter, area, and volume.
Science of Flight	TX	MA.5.15.A	explain and record observations using objects, words, pictures, numbers, and technology; and
Integrating with Aeronautics	TX	MA.5.16.A	make generalizations from patterns or sets of examples and nonexamples; and
Intro to Aeronautics (109-123)	TX	MA.5.13.B	describe characteristics of data presented in tables and graphs including median, mode, and range; and
Scientific Method(124-144)	TX	MA.5.13.A	use tables of related number pairs to make line graphs;
Scientific Method(124-144)	TX	MA.5.13.B	describe characteristics of data presented in tables and graphs including median, mode, and range; and
Exploring Aeronautics			
2005 Mathematics			
Essential Knowledge and Skills			
Texas Mathematics			
Grade 6			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	TX	MA.6.8.B	select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter), area, time, temperature, volume, and weight;
Fundamentals of Aeronautics (145-176)	TX	MA.6.10.D	solve problems by collecting, organizing, displaying, and interpreting data.
The Resource Center	TX	MA.6.11.D	select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.
Science of Flight	TX	MA.6.10.D	solve problems by collecting, organizing, displaying, and interpreting data.

Integrating with Aeronautics	TX	MA.6.5.A	The student is expected to formulate equations from problem situations described by linear relationships.
Intro to Aeronautics (109-123)	TX	MA.6.10.D	solve problems by collecting, organizing, displaying, and interpreting data.
Scientific Method(124-144)	TX	MA.6.10.A	select and use an appropriate representation for presenting and displaying different graphical representations of the same data including line plot, line graph, bar graph, and stem and leaf plot;
Scientific Method(124-144)	TX	MA.6.10.D	solve problems by collecting, organizing, displaying, and interpreting data.
Scientific Method(124-144)	TX	MA.6.13.B	validate his/her conclusions using mathematical properties and relationships.
Exploring Aeronautics			
2005 Mathematics			
Essential Knowledge and Skills			
Texas Mathematics			
Grade 7			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	TX	MA.7.6.A	use angle measurements to classify pairs of angles as complementary or supplementary;
Fundamentals of Aeronautics (145-176)	TX	MA.7.9.A	estimate measurements and solve application problems involving length (including perimeter and circumference) and area of polygons and other shapes;
Fundamentals of Aeronautics (145-176)	TX	MA.7.11.A	select and use an appropriate representation for presenting and displaying relationships among collected data, including line plot, line graph, bar graph, stem and leaf plot, circle graph, and Venn diagrams, and justify the selection; and
Fundamentals of Aeronautics (145-176)	TX	MA.7.11.B	make inferences and convincing arguments based on an analysis of given or collected data.
Wings(177-208)	TX	MA.7.4.B	graph data to demonstrate relationships in familiar concepts such as conversions, perimeter, area, circumference, volume, and scaling; and
The Resource Center	TX	MA.7.2.C	use models, such as concrete objects, pictorial models, and number lines, to add, subtract, multiply, and divide integers and connect the actions to algorithms;
The Resource Center	TX	MA.7.13.D	select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.
Integrating with Aeronautics	TX	MA.7.2.A	represent multiplication and division situations involving fractions and decimals with models, including concrete objects, pictures, words, and numbers;

Integrating with Aeronautics	TX	MA.7.2.C	use models, such as concrete objects, pictorial models, and number lines, to add, subtract, multiply, and divide integers and connect the actions to algorithms;
Integrating with Aeronautics	TX	MA.7.3.A	estimate and find solutions to application problems involving percent; and
Integrating with Aeronautics	TX	MA.7.14.A	communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models; and
Intro to Aeronautics (109-123)	TX	MA.7.11.B	make inferences and convincing arguments based on an analysis of given or collected data.
Scientific Method(124-144)	TX	MA.7.11.B	make inferences and convincing arguments based on an analysis of given or collected data.
Scientific Method(124-144)	TX	MA.7.15.B	validate his/her conclusions using mathematical properties and relationships.
Exploring Aeronautics			
2005 Mathematics			
Essential Knowledge and Skills			
Texas Mathematics			
Grade 8			
Activity/Lesson	**State**	**Standards**	
Fundamentals of Aeronautics (145-176)	TX	MA.8.5.A	predict, find, and justify solutions to application problems using appropriate tables, graphs, and algebraic equations; and
Wings(177-208)	TX	MA.8.10.A	describe the resulting effects on perimeter and area when dimensions of a shape are changed proportionally; and
The Tools of Aeronautics	TX	MA.8.11.C	select and use different models to simulate an event.
The Resource Center	TX	MA.8.1.A	compare and order rational numbers in various forms including integers, percents, and positive and negative fractions and decimals;
The Resource Center	TX	MA.8.14.D	select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.
The Resource Center	TX	MA.8.1.E	compare and order real numbers with a calculator.
Integrating with Aeronautics	TX	MA.8.4.A	generate a different representation of data given another representation of data (such as a table, graph, equation, or verbal description).
Integrating with Aeronautics	TX	MA.8.5.A	predict, find, and justify solutions to application problems using appropriate tables, graphs, and algebraic equations; and
Integrating with Aeronautics	TX	MA.8.14.D	select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.
Scientific Method(124-144)	TX	MA.8.12.B	draw conclusions and make predictions by analyzing trends in scatterplots; and

Scientific Method(124-144)	TX	MA.8.12.C	select and use an appropriate representation for presenting and displaying relationships among collected data, including line plots, line graphs, stem and leaf plots, circle graphs, bar graphs, box and whisker plots, histograms, and Venn diagrams, with and without the use of technology.